

Biosciences Career Pathway

MISSOURI ECONOMIC RESEARCH & INFORMATION CENTER
MISSOURI DEPARTMENT OF HIGHER EDUCATION
& WORKFORCE DEVELOPMENT
APRIL 2022

What are Career Pathways?

Career Pathways are groups of occupations within a career field. Occupations within a pathway share common skills, knowledge, and interests. The pathways use industry-recognized credentials and are examples of how different levels of training or education can help provide opportunities for career advancement.

Missouri Numbers:



2,787 Employers



44,896 Workers



\$71,979 Average Wage

Why Have a Career in Biosciences?

Developments in biotechnology rapidly change the way we live, work, and learn.

Missouri has a strong presence in Plant and Agricultural Technology, Biomedicine, and Companion and Feed Animal Sciences.

Biosciences represents 1.97 percent of total private sector employment, employing over 44,000 workers in 2,787 businesses in 2020.

Employment has been growing at an average of 1.6 percent per year from 2015 to 2020. Missouri has high employment concentrations in Biosciences, particularly in Animal Food Manufacturing, Hog & Pig Farming, and Agricultural Chemical Manufacturing.

Biosciences industry wages averaged \$71,979 in 2020, higher than the state average of \$54,801 for all industries.

From research to production, there are a variety of innovative and rewarding careers in the Biosciences fields of Production, Research & Development, and Animal Sciences.

Know the Basics

Biosciences deals with how living things work and interact with each other, and teaches how to ask questions, make observations, and solve problems. Soft skills, such as interpersonal skills, professionalism, and dependability are important in all industries and occupations, including Biosciences. Biosciences deals heavily with research and production, so knowledge of mathematics and scientific principles is a must. Safety and quality control are a critical part of this industry, so attention to detail and continuous learning are necessary.

Skills needed for Success:

Biosciences has a set of industry-wide technical competencies that represent the knowledge and skills necessary to be successful in this industry. Research and development; manufacturing process design and development; knowledge of medical devices, drugs, and pharmaceuticals; as well as knowledge of agricultural feedstock and chemicals are some of the skills that may be needed for success.

Who's Hiring in Missouri?

Bayer Corporation

Millipore Corporation

Pfizer

Stryker Medical

Bunge



Production

Research & Development

Animal Sciences

Now

Short-Term On-the-Job Training

Helpers-Production Workers
Entry: \$25,930; Average: \$31,420

**Weighers, Measurers, Checkers,
& Samplers, Recordkeeping**
Entry: \$31,920; Average: \$39,340

**Farmworkers, Farm, Ranch, &
Aquacultural Animals**
Entry: \$24,980; Average: \$31,230

Certificates: Forklift Operator

Degrees: Chemistry
Certificates: American Society for
Quality (ASQ), Certified Quality
Auditor

Certificates: Certified Manager of
Animal Resources

Next

Certificate, Associate Degree, Apprenticeship, Moderate- to Long- Term On-the-Job Training

**First-Line Supervisor of
Production Workers**
Entry: \$45,300; Average: \$61,220

Industrial Machinery Mechanics
Entry: \$44,710; Average: \$55,480

**Chemical Equipment Operators
& Tenders**
Entry: \$34,590; Average: \$47,860

Chemical Technicians
Entry: \$36,100; Average: \$47,550

**Agricultural & Food Science
Technicians**
Entry: \$35,430; Average: \$48,550

**Inspectors, Testers, Sorters,
Samplers, & Weighers**
Entry: \$35,430; Average: \$47,030

**Veterinary Technologists &
Technicians**
Entry: \$25,860 Average: \$33,640

**Veterinary Assistants &
Laboratory Animal Caretakers**
Entry: \$25,100; Average: \$31,330

Degrees: Industrial Mechanics
and Maintenance
Certificates: Commercial
Driver's License, Chemical
Operator

Degrees: Chemistry
Certificates: American Society
for Quality (ASQ), Certified
Quality Auditor

Certificates: Veterinary
Technician/Technologist,
Laboratory Animal Technician

Later

Bachelor's Degree or Advanced Degree

Industrial Production Managers
Entry: \$80,440; Average: \$109,430

Chemists
Entry: \$52,030; Average: \$78,020

Veterinarians
Entry: \$66,330; Average: \$88,090

Chemical Engineers
Entry: \$90,040; Average: \$111,840

Medical Scientists
Entry: \$51,470; Average: \$79,870

Degrees: Engineering,
Business Administration &
Management

Degrees: Chemistry, Clinical
Laboratory Science/Technologist,
Chemical Engineering

Degrees: Animal Sciences,
Horticultural Operations,
Veterinary Medicine

Sources:

EMS1 Burning Glass Technologies Labor/Insight™ tool
Employment and Training Administration, Competency Model Clearinghouse
2020 Occupational Employment Survey Wage data, U.S. Bureau of Labor Statistics
Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics
Top employers data is based on 2021 online job ads



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